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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/767,707

01/24/2001

Kazuo Sugai

ASA-959

3678

24956

7590

12/12/2005

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EXAMINER

MURPHY, RHONDA L

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/767,707

Applicant(s)

SUGAI ET AL.

Examiner

Rhonda Murphy

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,8,9 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,8,9 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. This communication is responsive to the amendment filed on November 29, 2004. Accordingly, claims 1, 3-7 and 10-11 have been canceled and claims 2, 8, 9 and 12 are currently pending in this application. The claims are moot in view of new grounds of rejection.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by "reversed".

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Hojo (US 6,744,762).

**Regarding claim 9**, Hojo teaches a network routing apparatus comprising a plurality of packet forwarding units for performing a process of forwarding input packets (Fig. 1, the enclosed unit of Fig. 1 represents the packet forwarding units); each of said packet forwarding units including: a packet header operating mechanism for extracting a header of a packet and rewriting said header (Fig. 1, **header converters 171-178**; col. 6, lines 46-48) a plurality of packet retrieving units performing packet header retrieval while said packet header extracted by said packet header operating mechanism is used as a key (Fig. 16, **packet header separation/register setting unit 1601**; col. 16, lines 28-32); a retrieval packet distribution mechanism for distributing packet headers to said plurality of packet retrieving units (Fig. 16, **write/read controller**); and a retrieval packet rearrangement unit for rearranging packet header retrieval results supplied from said plurality of packet retrieving units (Fig. 16, **packet rearrangement mpu 1603**); wherein said packet headers are numbered in sequence by said retrieval packet distribution unit when said packet headers are distributed to said packet retrieving units by said retrieval packet distribution unit (col. 16, lines 28-41); said packet retrieving units retain said packet headers with said packet header sequence numbers while said packet retrieving units perform said packet header retrieving process (col. 16, lines 55-60); and said retrieval packet rearrangement unit rearranges retrieval results in the order of said packet header sequence numbers (col. 17, lines 7-17).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hojo (US 6,744,762) in view of Takada (US 4,878,218).

**Regarding claim 2**, Hojo teaches a network routing apparatus comprising a plurality of packet forwarding units for performing a process of forwarding input packets (Fig. 1, **header converters 171-178, separation/insertion units 101-108, and buffers 111-118**, combined represent the packet forwarding units); a packet distribution unit for distributing input packets supplied from an interface of a router into said packet forwarding units in order or into empty ones of said packet forwarding units which do not now perform processing (the enclosed unit of Fig. 1 represents the packet distribution unit; col. 6, lines 44-46); and a packet rearrangement unit for performing rearrangement of packets in inputting order of the packets which are subjected to said packet forwarding process by said packet forwarding units (Fig. 1, **packet rearrangement units 161-168**; col. 6, lines 60-65); wherein said packet distributing unit determines one of said packet forwarding units for distributing a packet on the basis of a header condition of said packet (col. 6, lines 51-57).

Hojo fails to explicitly disclose packets to be forwarded from a packet sender address to a forwarding address not arranged in reversed order even in a case where said packets are not rearranged by said packet rearrangement unit.

However, Takada teaches forwarding packets that are not arranged in reversed order where said packets are not rearranged by the packet rearrangement unit (col. 7, lines 5-7).

In view of this, it would have been obvious to one skilled in the art to modify Hojo's system by forwarding packets that are not rearranged by the rearrangement unit, for the purpose of transmitting packets that do not require rearrangement.

**Regarding claim 8**, Hojo teaches a network routing apparatus comprising a plurality of packet forwarding units for performing a process of forwarding input packets (Fig. 1, the enclosed unit of Fig. 1 represents the packet forwarding units); each of said packet forwarding units including: a packet header operating mechanism for extracting a header of a packet and rewriting said header (Fig. 1, **header converters 171-178**; col. 6, lines 46-48) a plurality of packet retrieving units performing packet header retrieval while said packet header extracted by said packet header operating mechanism is used as a key (Fig. 16, **packet header separation/register setting unit 1601**; col. 16, lines 28-32); a retrieval packet distribution mechanism for distributing packet headers to said plurality of packet retrieving units (Fig. 16, **write/read controller**); and a retrieval packet rearrangement unit for rearranging packet header retrieval results supplied from said plurality of packet retrieving units (Fig. 16, **packet rearrangement mpu 1603**); wherein said retrieval packet distribution mechanism determines a packet retrieving unit used for

distribution of packets on the basis of header conditions of said packets (col. 16, lines 28-38).

Hojo fails to explicitly disclose packets to be forwarded from a packet sender address to a forwarding address not arranged in reversed order even when said packets are not rearranged by said retrieval rearrangement unit.

However, Takada teaches forwarding packets that are not arranged in reversed order where said packets are not rearranged by the retrieval rearrangement unit (col. 7, lines 5-7).

In view of this, it would have been obvious to one skilled in the art to modify Hojo's system by forwarding packets that are not rearranged by the rearrangement unit, for the purpose of transmitting packets that do not require rearrangement.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hojo (US 6,744,762).

**Regarding claim 12**, Hojo teaches a network routing apparatus comprising a plurality of packet forwarding units for performing a process of forwarding input packets (Fig. 1, the enclosed unit of Fig. 1 represents the packet forwarding units); each of said packet forwarding units including: a packet header operating mechanism for extracting a header of a packet and rewriting said header (Fig. 1, **header converters 171-178**; col. 6, lines 46-48) a plurality of packet retrieving units performing packet header retrieval while said packet header extracted by said packet header operating mechanism is used as a key (Fig. 16, **packet header separation/register setting unit 1601**; col. 16, lines

28-32); a retrieval packet distribution mechanism for distributing packet headers to said plurality of packet retrieving units (Fig. 16, **write/read controller**); and a retrieval packet rearrangement unit for rearranging packet header retrieval results supplied from said plurality of packet retrieving units (Fig. 16, **packet rearrangement mpu 1603**); wherein said packet retrieving units classify packets on the basis of header conditions of said packets and outputting numbers specifying results of the classification as retrieval results (col. 27, lines 12-40; col. 28, lines 23-32); said retrieval packet rearrangement unit measures packet transfer rates in accordance with said numbers specifying said classification results of said packets received from said packet retrieving units (col. 35, lines 12-30).

Hojo fails to explicitly disclose aborting packets and suppressing an output rate.

However, Hojo further discloses a buffer controller for controlling packet read-out (Fig. 25; element 2543; col. 28, lines 1-4) for traffic management purposes.

Furthermore, the process of aborting packets and suppressing an output rate of the packets to prevent the rate from exceeding a predetermined value is well known in the art. It would have been obvious to one skilled in the art to include the process of aborting packets or suppressing the output rate, for the purpose of controlling and managing traffic to avoid congestion.



### **Conclusion**

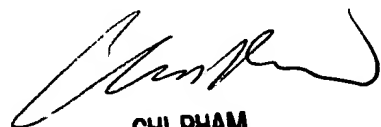
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy  
Examiner  
Art Unit 2667

rlm

  
CHI PHAM  
PERMISSORY PATENT EXAMINER  
12/9/05